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10/588,013	08/01/2006	Wolfgang Voss	SCHULTE	1385

James C Wray  
Suite 300  
1493 Chain Bridge Road  
McLean, VA 22101

7590

10/14/2009

EXAMINER
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MCCALISTER, WILLIAM M

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3753

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/588,013	<b>Applicant(s)</b> VOSS, WOLFGANG	
	<b>Examiner</b> WILLIAM MCCALISTER	<b>Art Unit</b> 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 3/5/09 (amendment).
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 15-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 July 2009 and 01 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Claims 1-14 have been cancelled. New claims 15-32 are pending.

#### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 25. Further, there seems to be no distinction between salient 25 and base 20, as required of claim 23 (see FIG 3).
2. The drawings are also objected to because Figures 3 and 4 illustrate the beveled partition (21) as the claimed “first side”, such that there is no distinction between the beveled partition and the base, as required of claim 22.
3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

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application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

4. Claims 26 and 27 are objected to because of the following informalities: they should read "wherein the seal ring is" --formed-- "of ...". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 15-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The drawings were previously objected to because "in Figure 1 the incorrect element is indicated as both the 'movable closure device 8' and the 'spring disk 7'" (Office Action of 3/5/09, p. 2). In response, Applicant amended FIG 1 by changing only the lead line of number 7 to point to the piston type, movable hat-shaped element. It is believed that Applicant should have instead changed the lead line of number 8 to point to the piston type, movable hat-shaped element, since ¶ 28 (of the PGPub) refers to "movable closure 8", and since the "movable closure" is claimed

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(claims 15, 18 and 28). Additionally, since the specification makes no meaningful distinction between members 7 and 8, Applicant should have removed all reference to member 7 from the drawings (to avoid future drawing objections) and should have amended the specification to comport with this equivalency.

As the claims now stand, read in light of amended FIG 1, the “movable closure” (of claim 1) must be read as the fixed, non-movable projection (which comprises part 27) about which the piston type, movable hat-shaped element reciprocates. As such, the claim is indefinite because it uses terminology (“movable”) in a manner (to refer to the fixed projection of FIG 1) that is inconsistent with the term’s accepted meaning (“movable” usually means not fixed) without clearly redefining the term in the specification.

Regarding claim 28, there appears to be no top hat, spring disk, or top hat brim that are movable, and which are attached to the movable portion (8).

Also, what is a “salient” as required of claim 23? There is no mention of it in the written description. Although former claim 7 referred to “salient (25)”, the drawings make no meaningful distinction between member 20 and member 25 (see FIG 4).

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 15-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no support for the movable closure "coupling the valve housing and the consumer connection", as required of claim 15 at lines 5-6.

***Claim Rejections - 35 USC § 103***

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 15-18 and 22-27 as understood are rejected under 35 U.S.C. 103(a) as being unpatentable over de Launay (US 4,256,137) in view of Albertson (US 6,290,235).

Regarding claims 15-17, de Launay discloses a pressure limiting valve device for protecting hydraulic pressure packs against an overload and hydraulic props against falling rocks in underground mining and tunnel construction (that is, de Launay's valve is capable of being used with a hydraulic pressure pack), comprising: a valve housing (80), a consumer connection (16, 18; which is capable of being connected to a consumer at 28) coupled to the valve housing, a pressurized fluid outlet (32) in the

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consumer connection (16, 18) for allowing flow of pressurized fluid, a flow gap between the pressurized fluid outlet (32) and the consumer connection (16, 18) (the open interior space between inlet 28 and outlet 32), a movable closure (54) coupling the valve housing (80) and the consumer connection (16, 18) (the movable closure establishes a fluid coupling between the valve housing and the consumer connection), a valve spring (76) in the valve housing (80) for exerting force (at 96) such that the movable closure is movable against the force exerted (when the valve is open, as seen in FIG 1), a seal (72) for securing the flow gap, the valve housing (80) and the consumer connection (16, 18) remaining connected when the overload occurs for discharging the pressurized fluid (the valve housing 80 is always contained within the consumer connection 16, 18).

De Launay does not disclose the seal to be located on the movable closure. Albertson teaches (see FIG 9) that it was known in the art at the time of invention to loosely place a small square seal ring (16) in a large square groove (170), where the groove is located along an interior circumference of a similar surrounding member (14), where reciprocating motion occurs between the surrounding member and an inner cylindrical member (26) (see col. 5 lines 22-27). Albertson teaches the seal to allow flow around the outside of the seal ring (indicated by the dotted line). To similarly seal the interface of de Launay's concentrically arranged members (42, 68), it would have been obvious to use a seal as taught by Albertson, rather than that disclosed by de Launay.

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Regarding claim 18, de Launay as modified by Albertson would have resulted in the groove and the seal ring being disposed on the movable closure such that the system pressure fluid acts on the seal ring when the valve is in a closed position (as shown by Albertson, the fluid pressure translates to the seal no matter the position of the concentrically arranged members).

Regarding claim 22, Albertson teaches the groove to comprise first and second opposing sides and a base between the first and second opposing sides (it is generally square, just as Applicant's), also including a beveled funnel-type partition (202b) along the first side and the base, and a funnel opening formed by the funnel-type partition.

Regarding claim 23 as understood, Albertson teaches a salient on the base of the groove (it is formed of an outwardly projecting angle).

Regarding claim 24, it would have been obvious to one of ordinary skill in the art at the time of invention to form a second bevel, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 70.

Regarding claim 25, the bevels are spacers because they delimit motion of the square seal.



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Regarding claims 26 and 27, it would have been obvious to one having ordinary skill in the art at the time of invention to form the seal ring from plastic and/or polyamide, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. the seal ring is of plastic material.

11. Claims 19-21 and 28-32 as understood are rejected under 35 U.S.C. 103(a) as being unpatentable over de Launay in view of Albertson as applied to claim 1 above, and further in view of Dams (EP 0096303).

Regarding claims 19-21, de Launay discloses a blind hole (30) on the consumer side of a connection portion, and radial connection bores connecting the blind hole and the flow gap at an end side of the blind hole at a height of the flow gap. de Launay does not disclose the groove and the seal ring partially extending into opening cross-sections of the connection bores. Dams teaches that it was known to locate a similar seal such that it extends into the cross-section of similar connection bores (see FIG 2). To readily allow fluid to enter the seal as required of Albertson, it would have been obvious to locate the seal in the cross-section of the connection bores, as taught by Dams.

Regarding claim 28, de Launay discloses a piston type attachment in the movable closure with a top hat portion (66) and a brim (68) that covers the radial bores to close the flow gap. de Launay does not disclose a connection nipple as claimed. Dams

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teaches that it was known to provide a connection nipple (at 25, front page) on the inlet of such a valve. To facilitate easy connections to de Launay's valve, it would have been obvious to use a connection nipple therewith, as taught by Dams.

Regarding claim 29, Dams discloses outlet ports (86), wherein the flow gap extends to the outlets ports.

Regarding claims 30-32, it would have been obvious to utilize a rounded corner and different shaped edges on the piston and seal ring, since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. In re Dailey, 357 F.2d 669, 149 USPQ 457 (CCPA 1966).

### ***Response to Arguments***

12. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. (US 4,256,137 to de Launay is relied on, not US 4,176,680 to de Launay as argued by Applicant.)

13. Applicant's arguments filed 7/6/2009 have been fully considered but they are not persuasive. To the extent applicable to the '137 de Launay patent, Applicant argues that it has nothing to do with a pressure limiting valve. In response, the recitation "pressure limiting valve" has not been given patentable weight because the recitation

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occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Moreover, check valves inherently limit upstream pressures because they open in response to upstream pressure, thereby relieving said pressure.

### ***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 4,958,656 discloses a similar pressure relief valve.

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM MCCALISTER whose telephone number is (571)270-1869. The examiner can normally be reached on Monday through Friday, 9-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WILLIAM MCCALISTER/  
Examiner, Art Unit 3753

/STEPHEN HEPPERLE/  
Primary Examiner, Art Unit 3753

WM  
10/5/2009